# THE WASH PROJECT – THINKING OUTSIDE THE CULVERT

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The **Watershed Approach to Stream Health (WASH)** project grew out of a 1999 local storm water round table. Water quality professionals representing various communities in the Boulder Creek and St. Vrain Creek watersheds attended these meetings. The group agreed to develop a way to identify storm water management and data gaps and create consistent storm water quality management approaches throughout Boulder County, which includes much of the Boulder Creek watershed. This effort was initially funded by a grant from the U.S. Environmental Protection Agency (EPA).

The primary goal of the WASH project is to implement a regional storm water management program not only to comply with Phase II regulations but to address broader water quality issues at a watershed scale. The WASH partners recognize the advantages of creation of cost-effective solutions to storm water problems through collaboration on compliance with the Phase II Storm Water Regulations. Countywide collaboration supports and implements the spirit of the watershed approach envisioned in the Federal Phase II Storm Water Regulations. The project has already enjoyed side benefits of increased communication and cooperation, and has created a collaborative process for discussing water quality issues.

There are a number of ways in which WASH uses novel approaches to addressing storm water issues. The WASH Project's implementation strategy provides one example of innovation. WASH Implementation strategy evolved out of the need to allow flexibility within local jurisdictional boundaries. For instance, jurisdictional issues relating to local land-use control were considered when developing programs. The program structure outlined three approaches to collaboration:

1. Shared program elements: common themes and common implementation procedures. An example would be the development of common ordinance language.
2. Individual programs elements: exclusively the responsibility of individual entities to implement. An example would be individual community enforcement of an adopted ordinance that contains the common ordinance language.
3. Shared Program: shared by all entities. An example would be the implementation of one education program servicing all participating communities.

## A LOCAL WATERSHED APPROACH

Much has been written about "watershed approaches" to water quality protection. Often these efforts focus on scientific assessments and technical solutions to problems and issues. However, the relationships between entities to achieve a watershed approach are just as important and provide the foundation to tackle technical challenges. In particular, cooperative approaches to compliance with the Phase II Storm Water Quality Regulations involve internal agreements within an organization, agreements between entities within a watershed and between the group of entities and the state agency.

The Watershed Approach to Stream Health (WASH) Project has been operating informally since August 1999. It has made significant strides in building cooperative relationships among municipal, county, and regional water quality professionals in the Boulder Creek and St. Vrain Creek watersheds. The WASH project developed its own unique solution in order to share Phase II programs. The process of developing these programs and the benefits and challenges of program development are described. The WASH process provides an example of a compliance strategy that builds on existing innovative local programs and agreements to create a program that fits local conditions. This paper describes the process of developing the WASH collaborative approach. It also provides a summary of lessons learned from this process that WASH participants hope will be helpful to other efforts.

## THE WASH PROCESS

During a storm water round table in April of 1999 and a subsequent focus group in August 1999, it was discovered that there are many gaps in Boulder County storm water data. Initially, the WASH Project provided a forum for Boulder County water quality professionals to identify these data gaps, create workable solutions for filling these gaps, and begin to implement a countywide system of sharing and using storm water quality data to improve water quality in Boulder County.

EPA funding was provided for the WASH project in fiscal year 1999 under the 104(b)(3) grant program. Boulder County used these funds to conduct a workshop on watershed approaches to water quality issues. The grant was also used to facilitate initial exploratory meetings of potential county partners. In the initial WASH meetings, a working agreement and work plan were created between the WASH partners.

The grant also funded a workshop on watershed management presented by the Center for Watershed Protection. This workshop provided information about storm water quality problems and created greater understanding of the issues associated with watershed management strategies. Facilitated meetings of county entities to explore the potential benefits of a watershed approach to storm water permitting followed this workshop. County entities have a history of cooperative, intergovernmental approaches to land management but cooperation on water issues has sometimes been lacking and at times contentious. Thus, facilitation of this discussion was key to identifying common ground and starting the process of developing cooperative programs.

During the first WASH Project meeting, participants came together to discuss the potential benefits of working together and resources that each municipality brings to the table. Participants agreed that in working together, communities would benefit from sharing data, resources, programs, and ideas. Participants were also interested in presenting the public, elected officials and developers with a unified storm water quality message from all Boulder County municipalities.

Participants saw Boulder County municipalities collaborating by:

- Sharing monitoring and data
- Sharing development standards
- Creating a model for accomplishing standards in the basin
- Being unified in defining incentives
- Cooperating between agencies
- Being a model community with respect to water quality

The participants agreed to initiate monthly meetings to explore the opportunities for cooperation. Over the course of a few months, the participants agreed that next steps should include:

1. Create a Memorandum of Understanding/Agreement (MOU)
2. Begin sharing data
3. Educate the public
4. Find additional resources
5. Comply with new regulations

Participants also noted the importance of clearly defining problems, solutions, and common ground at each step in the process, as well as the importance of continuing to build relationships with each other.

## *Building Common Goals & Objectives*

Participants were asked to break into small groups and answer the following questions together:

What would it look like if we were successful?
How would things be different than the current situation?
What are the possibilities for what a plan like this could create/accomplish?
What are our "key leverage areas?"
What specific issues can we focus on to move us forward toward our new vision?

As a result of discussion in the small groups, individuals were asked to jot down thoughts or phrases regarding their needs, desires, values, and goals with respect to the county's storm water quality. Shared values and goals identified by individuals included:

- enhance and improve water quality
- get councils and boards to believe in enhanced water quality
- educate self and community on Phase II regulations
- use one anther as resources; collaborate

Individuals then formed small groups to find any overlap among their shared values and goals and small groups formulated language to describe overlaps. Key words which described the overlaps included:

- stream health
- cost effective
- water quality programs
- improve and protect water quality

- storm water management
- watershed approach
- clearinghouse for education efforts

From these key words, the WASH Project partners developed the following goal and objectives:

**Goal:** Develop a cost-effective watershed approach to enhance and improve water quality through storm water management to protect public and environmental health.

**Objectives:**

- Develop common storm water education programs to raise public awareness and increase public participation in water quality protection.

- Coordinate training and inspection programs for erosion control.

- Coordinate implementation of Best Management Practices (BMPs) to mitigate impacts of storm water runoff.

- Share and coordinate resources to monitor storm water quality throughout the Boulder County watersheds.

- Develop common Phase II programs to ensure cost-effective compliance strategies for WASH communities.

- Provide a forum for coordination of storm water quality concerns and related watershed issues.

The facilitator also led the group in thinking through an agreement regarding the operating ground rules for the project. Following is the working agreement for the project developed by Boulder County participants.

**WASH Project Partners Are:**
- Dedicated to the stated goal and objectives of the project.
- Active participants, attending meetings and voicing opinions equally.
- Willing to share resources and data.
- Clear about their agency's needs and interest in participating in the project.
- Completing the bulk of WASH Project work in subgroups.

**WASH Project Partners Will:**
- Be prompt to meetings and participate to the highest level of their ability.
- Maintain focus, prioritize all actions, and encourage involvement of all.
- Understand that not all communities have the resources to attend every meeting.
- Complete assigned tasks that are agreed upon in the group.
- Stay informed about discussions and decisions that take place at WASH meetings in their absence.

**WASH Project Partners Are:**

- Participating in good faith and working towards the identified common goal and objectives.
- Committed to the protection of water quality within the Boulder Creek and St. Vrain River watersheds.

- Committed to sharing information and resources with other WASH partners.
- Committed to developing strategies and solution that benefit the general public and represent the shared goal and objectives of the WASH Project.

**WASH Project Decisions:**
- Will be discussed in an organized manner and the process will be open to all.
- Will be made by consensus, an approach to find an inclusive solution that everyone can support.

**WASH Project Partners:**
- Understand compromise may be necessary to reach WASH common goals.
- Show a commitment to mediate disagreements.

The size of the communities involved in WASH varies considerably and the working agreement acknowledged the variable resource pool available due to size differences. It allowed small Boulder County communities to remain involved without committing scarce personnel resources. This was valuable since initially it was not clear that the smaller communities would be designated by the state for compliance with the Phase II permit requirements. When the state finally designated these communities, the smaller communities were linked to the WASH project and the groundwork had already been laid to include them in the project as Partners.

## *Memorandum of Understanding: The Power of Non-Binding Agreements*

Early in the process, WASH participants recognized that the six minimum control measures (MCM's) were especially suitable for sharing resources between communities. Thus, exploration of the possibility seemed realistic and appropriate. A MOU was created to document the willingness of the entities involved in the WASH project to explore a watershed approach to compliance with the Phase II permit requirements. The MOU was intended to explain to community decision makers the importance of protecting county streams through a watershed approach. The agreement also pointed to the connection between watershed protection and the opportunity that the Phase II regulations represented. The agreement was a non-binding agreement. However, it created a vehicle for senior management to endorse commitment of staff resources to this approach. The MOU provided formal support for the WASH goals and objectives and the working agreement developed during early WASH work sessions. It also laid the groundwork for development of a formal intergovernmental agreement.

The MOU signature process presented further opportunities to educate decision makers. Senior management of Boulder County entities were informed about Phase II Storm Water Regulations and the benefits of a cooperative, cost effective approach to compliance. Ultimately, a year later, the MOU was signed by the majority of the original WASH participants. Actual signature of the document provided experience in the logistics, which will be useful when a formal agreement is signed.

## *Subgroups: The Real Workhorse of the Process*

The WASH participants agreed that meeting once per month for a half-day meeting was a realistic time commitment; however, it quickly became apparent that in order for work products, such as the MOU, to be completed, more frequent meetings of smaller subgroups were needed. During the first year, the subgroups focused on the following tasks:

- **MOU:** develop MOU and obtain signatures
- **Data:** inform WASH Project partners of available storm water resources that can be shared throughout Boulder County
- **Education:** create widespread awareness of water quality issues including implementation of web page, brochures, media products, school materials and presentations
- **Additional Resources:** explore available and applicable funding and resources possibilities in order to secure additional resources for the WASH project
- **Regulations:** inform and educate the WASH project partners about Phase II storm water regulations. This group also investigated the options for a cooperative permit arrangement under the state of Colorado's permit system.

Initially, these work groups focused primarily on gathering information and educating the WASH participants about many issues.

During the second year, one of the most important decisions made by the group was to coordinate compliance under the Phase II Storm Water Regulations. Implementation of the following six "Minimum Control Measures" is required under the Phase II Stormwater Quality Regulations :

1. Public education and outreach on stormwater impacts
2. Public involvement and participation
3. Illicit connections and discharge detection and elimination
4. Construction site stormwater runoff control
5. Post construction stormwater management in development and redevelopment
6. Pollution prevention and good housekeeping in municipal operations

As a result of this decision, the participants re-organized into three workgroups, each workgroup taking on the task of developing two of the above six MCM's called for in the Phase II Storm Water Regulations. These three workgroups each tackled two of the six MCM's as follows:

- Pollution Prevention and Good Housekeeping
- Construction and Post Construction
- Education and Public Involvement

The WASH participants recognized the need for an organized effort to track the progress of the workgroups and prepare an overall schedule for the WASH project in order to coordinate submittal of a joint application for a Storm Water permit. A WASH Project Steering Committee was formed which included representatives from three of the largest jurisdictions in the Boulder Creek/St. Vrain Creek watersheds. These include Boulder County, the city of Boulder and the city of Longmont. The Steering Committee was charged with planning and oversight of the overall WASH Project. Additionally, the Steering Committee developed a schedule for WASH Project activities leading up to storm water permit submittal in March 2003.

The workgroups allowed an interested group of participants to focus on a key aspect of the process. The flexibility of the workgroup tasks allowed the project to progress by making the most of available

personnel. The WASH Programs that resulted from workgroup efforts ultimately became the foundation of the WASH Plan.

## *Technical Panels: Educating Ourselves*

WASH Project participants organized and attended a series of panel discussions. The WASH Steering Committee invited technical experts to speak on these panels at the WASH general meetings. The panel discussions served to educate all of the WASH participants on the complex issues of storm water quality. These panel presentations began in November 2000 and continued through April 2001.

In May, after the completion of the panel presentations, the WASH Project partners considered all information, which had been gained as a result of the panels. The WASH Project partners answered the question: *What specific storm water problems will the WASH Project address?*

After much group discussion, those present agreed that urbanization is the underlying cause of increased and undesirable storm water runoff issues. While halting urbanization is neither desirable nor practical, urbanization can be accomplished in ways that minimize runoff concerns. In urbanized areas, storm water quality and quantity has been impacted and is different than in non-urbanized areas. The group agreed that by addressing four distinct, yet interrelated areas, the WASH Project could lessen the impact of storm water runoff. The four focus areas are:

1. Sediment
2. Nutrients
3. Spills
4. Erosion

The WASH participants agreed that the WASH project would develop programs to mitigate the impacts of urbanization on the quantity and quality of storm water runoff. This includes the development of programs that address sediment and nutrient loading, illicit discharges (spills), and erosion. The WASH participants agreed that programs would focus on prevention rather than treatment and be easy to implement, enforceable, and cost effective. The WASH Project focus was integrated into draft program proposals under development in each of the workgroups.

## *Management Transition*

Initially, the Boulder County WASH Project consisted of a group of county and city staff, representatives of non-governmental organizations, university researchers and the regional flood management agency. This diverse group of representatives might have encountered difficulty in coordinating decisions and steps needed to make the WASH project a reality. The EPA grant provided the funding to hire a county facilitator. This facilitator provided a focus for group activities and was a tremendous organizational resource as the group worked through common goals and agreements. Facilitation was also key to developing relationships between WASH participants as the group developed an identity and focus.

The WASH participants recognized that the management system developed over the history of the project was working well. This management system was reflected in the Intergovernmental Agreement (IGA). Part of this management system included establishment of a WASH Project Coordinator to track budgets, program development and permit compliance. This position reflected the importance of the role of the

facilitator in the evolution of the WASH partnership. The Steering Committee also became a formal part of the WASH management system and was incorporated into the IGA.

Over the first two years, the facilitator essentially served as the WASH Project Coordinator. While not initially recognized by the group, the skills and background of a facilitator are substantially different from a project manager. This became apparent as the relationship between the WASH partners became formalized and the skills and focus needed for management of the group changed. The need for different management skills and resulted in a shift of project personnel.

Other shifts in organizational needs also came to light. The informal contribution of staff resources began to shift towards commitment of financial resources for additional WASH staff and consulting resources. This transition time involved some uncomfortable discussions and changes in personnel. In retrospect, this transition from informal to formal organization is predictable and is likely to continue as the group continues to progress towards a formal permit arrangement.

## GOING BEYOND THE MINIMUM: HOW?

### *Building on Previous Successes*

The history of storm water quality management in Boulder County provides an important foundation for the development of the WASH Program. A number of innovative and progressive programs were developed before implementation of the storm water regulations. These programs were already applied regionally through the county and local school district. The existence of these programs quickly was recognized as a resource for development of WASH programs for compliance with the storm water regulations.

In 1989, it appeared that the Storm Water regulations were to be finalized. In anticipation of those regulations, the city of Boulder established a Storm Water Quality Program; however, the Storm Water Quality regulations were not actually finalized until 10 years later. The experience and expertise developed during this interim period were an important foundation for the WASH project.

The city Storm Water Quality program developed and implemented an award winning watershed education program, WatershED. WatershED was developed in cooperation with the Boulder Valley School district and a local watershed organization. The teacher training in the curriculum includes:

- Information on the local watershed
- Classroom and water quality monitoring activities

Community action programs were also developed:

- Storm Drain stenciling
- Raise and release of native species
- Adopt A Stream

The Watershed Outreach program gives adults and kids proactive means to protect, conserve and improve community water. This program was incorporated into the WASH Education program with plans to expand application to another school district located in the Boulder Creek watershed.

Additionally, the city of Boulder and Boulder County have cooperated to develop the Partners for a Clean Environment (PACE) Program. The PACE program offers a voluntary certification of good business practices for environmental protection. To become PACE-certified, businesses must meet industry-specific criteria that reduce hazardous materials and pollution from their routine operations. The certification involves:

- Inspection of business activities for their impacts on the environment.
- Documentation of current business practices which are protective of the environment
- Recommendations to improve practices
- Certification of implementation of protective practices
- Placard announcing PACE certification

Over the years, this certification program has been extended to public entities in addition to businesses. The WASH partners are building on this existing program. Storm water quality protection will be added to the PACE programs. The certification will be extended to all WASH partner municipal and county operations for the WASH Pollution Prevention and Good Housekeeping programs.

## *Cooperation as Innovation*

In the latter part of 2001, the WASH Project subcommittees completed the proposed programs for each of the six minimum controls measures required by the Phase II Storm Water Regulations. These proposed programs were summarized in tables that outlined the following program components:

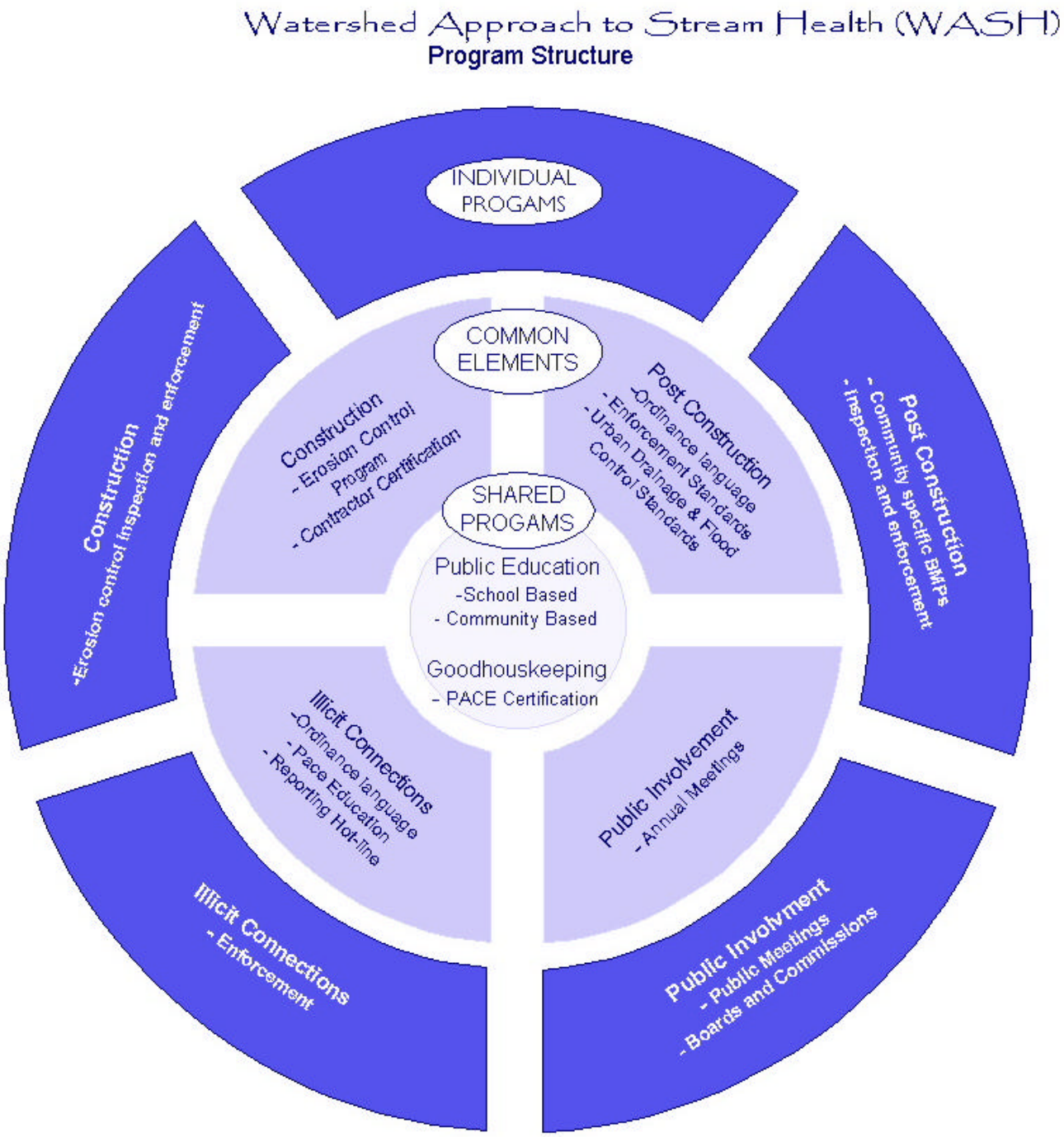
- Required Minimum Control Measure
- Program Goals
- Regulatory Compliance
- Community Standards
- Local and National Existing Resources
- Best Management Practices (BMP) Selection
- Implementation Strategy
- Coordination and Responsible Agencies
- Estimated Costs and Funding Options
- Measurable Goals
- Implementation Schedule

Within each of these programs, shared elements, shared programs and individual programs were identified. This approach was developed in recognition of the extent of shared programs that was possible. The WASH implementation strategy evolved out of the need to allow flexibility within the structure of local jurisdictional boundaries. For instance, jurisdictional issues relating to local land-use control were considered when developing programs. The program structure outlined three approaches to collaboration as follows:

1. Shared program elements: common themes and common implementation procedures. An example would be the development of common ordinance language.
2. Individual programs elements: exclusively the responsibility of individual entities to implement. An example would be individual community enforcement of an adopted ordinance that contains the common ordinance language.

3. Shared Program: shared by all entities. An example would be the implementation of one education program servicing all participating communities.

The following graphic shows the relationship between these program elements:



Sharing programs was recognized as particularly challenging for the Construction and Post Construction programs. The group recognized the challenge of coordinating these two programs in particular due to the variable approaches in regulations and community philosophies. It would not be politically feasible or practical for an entity to relinquish jurisdiction for inspections and approval of development plans.

The work group researched types of ordinances, guidance and enforcement resources currently in place in each community. This provided background on similarities and differences between communities in existing programs. The group identified the following differences:

- Status and patterns of community land development
- Varying levels of funding and resources
- Approaches to storm water quality management

Common elements identified included:

- Guidance manuals
- Challenges in inspection and enforcement
- Management approaches to open space and stream buffers

This analysis allowed the group to realistically identify potential areas of co-operation and sharing between WASH Project partners.

Elements that could be shared included common ordinance language and minimum inspection and enforcement procedures. It was agreed that sharing these elements would create a consistent regulatory environment for businesses in Boulder County. The added benefit of enacting consistent regulations across the county could be expected to protect the health of the Boulder Creek watershed. The common elements of the regulations still allow a regional approach to erosion control and stream protection.

The group agreed that adding a certification of erosion control training to the Construction Program would be an appropriate way to ensure consistency of application of erosion control standards throughout the county. This certification is not a required element of the storm water regulations but was recognized as a cost effective approach to supplement inspection resources available to WASH entities.

The proposed WASH program structure is an innovative, local response that allows maximum sharing of resources for those programs that are readily shared but retains the ability of local jurisdictions to implement their regulations and standards. This flexibility was important for WASH participants, allowing for regional cooperation and maintaining local autonomy. WASH participants recognized that cooperative programs and a regional approach was, in itself, going beyond regulatory requirements.

## BENEFITS

The WASH participants recognize and have reaped the benefits of a regional, watershed approach during the three years of program development. The watershed approach employed by the WASH participants as a compliance strategy has generated grant income to support and advance the project. After March 2003, development of programs will no longer be eligible for grant funding because the programs will be considered regulatory requirements. However, since a regional approach is not a regulatory requirement, the WASH participants are hopeful the project will continue to attract grant funding.

More importantly, stream protection benefits are anticipated from the regional, watershed approach. The application of common regulatory requirements will allow for consistent standards to be applied to business, public and construction activities throughout the county. This reduces the potential for one entity to apply lower standards in one portion of a watershed, perhaps undoing the benefits achieved by another entity applying protective standards in another portion of the watershed.

The complete sharing of the WASH Education program is anticipated to provide similar benefits. It is hoped that the power of a consistent message and look from the WASH program will capture the public's attention. This is particularly important given the nature of non-point pollution sources that are literally in everyone's "backyard."

WASH participants have already reaped the benefits of sharing personnel, experience and expertise during development of the WASH programs. The collaborative nature of the process has multiplied the resources available to each entity for development of a permit application. A comparison of the resources available within each entity versus the combined resource base of all county entities quickly shows the power of combining resources.

During the development of the WASH budget for the proposed programs, the WASH consultant's research indicated that a cost savings of 25 percent to 30 percent for program costs could be expected from a collaborative approach. This was confirmed by an analysis which indicated a 25 percent cost savings could be expected by a selected WASH entity.

Further benefits are anticipated from the expansion of innovative existing programs that have already achieved substantial recognition. These programs have been tested and gained the benefit of experience. The programs are now well positioned for expansion.

## LESSONS LEARNED

WASH participants have learned a lot of lessons over the course of the project's evolution.

***Be Flexible-Adjust Directions***
The evolution of a program can lead in many directions and there are many ways to achieve the same result. Be flexible in order to take advantage of innovative ideas and directions that produce a program that is appropriate for local needs.

***Goals are Key-Be Firm***
Achievement of collaboration and a common approach may seem unrealistic in the face of individual regulatory systems. Detailed examination of the components of various options can yield unexpected opportunities. Commitment to agreed upon goals and objectives facilitates is key to progress through these challenges.

***Money-Rubber Meets the Road!***
The level of scrutiny of proposals increases when it is time to make financial commitments. Factor in the necessary time and energy to address this additional scrutiny. Additional time will often be required when it seems that development of the program components is final. The commitment of each jurisdiction to the process will be tested as the budget is finalized.

***It Takes Time***

The process of collaboration takes time. It is common to experience a long period for development of a program within one jurisdiction. That time period should be at least doubled for development of a regional program.

***Patience – Don't Force Square Peg into Round Hole***

The time required to develop these collaborative approaches dictates the need for patience during the process. Don't frustrate your efforts further by being rigid. There are many options and it is important to choose those options that work well for your particular group of organizations and individuals.